

INTRODUCTION: During the period 14-18 January 1989, Mobil Madura Strait Inc. had a well site hazard survey conducted for the proposed Madura XX-1 drilling site located within the central part of the Madura Strait block, offshore eastern Java Indonesia. (See Diagram 1). The following types of surveys were conducted:

- A. BATHYMETRY.
- B. SIDE SCAN SONAR.
- C. SHALLOW SUB BOTTOM PROFILES USING TOWED BOOMER SOURCE.
- D. MULTI-CHANNEL, DIGITALLY-RECORDED SEISMIC USING SPARKER SOURCE.

The results of the surveys indicated a tight anticlinal fold with a series of faults. The main feature was an intrusion which forced the rock up to create a local structural high. Indications were that this structural high could trap a significant thicknesses of gas in thin stringers. Two shallow horizons were reflected with high amplitude anomalies that are usually associated with lateral movement of gas along suitably permeable zones. These two horizons' structural highs were predicted at 1451 and 2524 feet below the mudline. The boomer data also experienced severe acoustic blanking of data that was attributed to a gas plume close to the sea bed. (See Diagrams 2 and 3).

There are several approaches to shallow gas well control